

State of Nevada
Division of Environmental Protection
Bureau of Air Quality

Class II Operating Permit
Application Packet for

New Class II Sources
Revision of Class II Operating Permit
Renewal of Class II Operating Permit

Prepared by
Division of Environmental Protection
Bureau of Air Quality
Class II Permitting Branch
July 2000

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*State of Nevada
Division of Environmental Protection
Bureau of Air Quality*

**CLASS II OPERATING PERMIT APPLICATION
FOR NEW CLASS II SOURCES,
REVISIONS OF CLASS II SOURCES, AND RENEWALS OF
CLASS II SOURCES**

Please return to: Nevada Division of Environmental Protection
Bureau of Air Quality, Class II Permitting Branch
333 West Nye Lane
Carson City, Nevada 89706-0851
(775) 687-4670 FAX (775) 687-6396

General Information

- This application is available from the Bureau of Air Quality in a WordPerfect 6.1 file, or on the internet at <http://www.state.nv.us/ndep/baq/>. All information required in the application may be computer generated and submitted to the Bureau on 3½" disk(s). In addition, one printed copy must be submitted.
- All information required by the "General Company Information" and by the relevant forms in Appendices 1-8 must be completed.
- The application filing fee required by NAC 445B.327 must be submitted with the completed application forms. The fee for a new Class II operating permit is \$3,000. The fee for a revision or a renewal of a Class II operating permit is \$2,000. Checks must be made payable to: Nevada State Treasurer, Environmental Protection.
- This application packet shall be used for new Class II sources, revisions to Class II permits, and renewals of Class II permits. This application packet is not for use for an administrative amendment, a general permit, a stand-alone surface area disturbance permit, nor for a request for change of location approval permit for a temporary source.
- Separate application forms for specific types of emission units are provided in Appendix 1. They include application forms for: (1) industrial processes, (2) combustion equipment, (3) storage silos, (4) liquid storage tanks and (5) surface area disturbances.
- An application for a Class II operating permit must be signed by a responsible official, as defined in NAC 445B.156. The certification/signature page is contained in Appendix 8.
- All items on the application must be addressed. If an item does not apply "N/A" or similar notation may be entered in the appropriate blank. All other information must be provided. Incomplete applications will be returned to the responsible official within 10 working days of receipt of the application packet.
- A **complete** application for renewal of an operating permit must be submitted at least 30 calendar days before the expiration date of the current permit. The NDEP-BAQ suggests that the application be submitted well in advance of the 30 day deadline to ensure the application is complete.
- Assistance in completing the application is available from Mr. Darrell Soyars at the Business Environmental Program, University of Nevada, at (775) 689-6676 or (800) 882-3233 (toll free), or Ms. JC Goodman, Bureau of Air Quality at (775) 687-4670, extension 3067.

Instructions

1. **General Company Information form:** All applicants should complete each item or explain in the space provided why no information is needed. Please specify "N/A" (not applicable) if necessary.
2. **Emission Unit Application forms:** Each emission unit at the stationary source must be identified. An appropriate form for each emission unit must be chosen from the forms provided in Appendix 1. Forms may be duplicated as needed. **PLEASE RESPOND ON THE APPROPRIATE APPLICATION FORM TO SECTIONS 1 THROUGH 5, FOR EACH EMISSION UNIT** [NAC 445B.295.1(a)].

Section 1. On forms requesting the Standard Industrial Classification Code (SIC), describe the processes and products by SIC, including any associated with an alternative operating scenario identified in this application [NAC 445B.295.1(b)].

Alternative Operating Scenarios

Complete a separate application form for each emission unit having an alternative operating scenario (*A common example of an alternative operating scenario is a steam boiler which utilizes natural gas as the primary fuel, but may combust diesel fuel as an alternate fuel source*). Please check the box in the upper right hand corner of each application form for emission units requesting an alternative operating scenario. Additionally, for each emission unit application form requesting an alternative operating scenario:

- a. Define each alternative operating scenario [NAC 445B.296.1(a)];
- b. Demonstrate that each scenario will comply with each applicable requirement or relevant requirement of NAC 445B.001 to 445B.395, inclusive [NAC 445B.296.1(b)];
- c. Detail proposed conditions, including monitoring and recordkeeping for each alternative operating scenario, which will ensure compliance. Contemporaneous log entries must be provided each time the source changes from one scenario to another [NAC 445B.296.1(c)].
- d. Provide emission rates and detailed calculations for each alternative operating scenario in Appendix 4 [NAC 445B.296.1(d)]

Surface Area Disturbance

Complete a Surface Area Disturbance application form for any land disturbances which equal or exceed 5 acres. (*Note: The submittal of a dust control plan is required for each surface area disturbance which equals or exceeds 20 acres. Please provide the dust control plan in Appendix 6.*)

Section 2. On forms requesting design rate and operating parameters, describe all production rates, operating schedules and materials used in the process [NAC 445B.295.1(c)].

Section 3. Where requested, describe all fuels and fuel usage [NAC 445B.295.1(c)].

Section 4. Identify and describe all air pollution control equipment [NAC 445B.295.1(d)].

Section 5. On forms requesting permit emissions limitations, provide the **requested permit emissions limitations** for each emission unit [NAC 445B.295.1(h)]. (*Note: These figures are the applicant's proposed emissions limitations which will appear on the permit.*)

3. **Insignificant Emission Unit Information form:** Existing and new emission units that perform insignificant activities and are not required to obtain operating permits can be found in Appendix 2 (NAC 445B.288). The potential emissions from insignificant activities must be provided as part of the stationary source's potential to emit. A list of trivial activities is provided in Attachment 2 for informational purposes. Trivial activities are exempted from consideration. **PLEASE RESPOND ON THE INSIGNIFICANT EMISSION UNITS INFORMATION FORM TO SECTIONS 1 THROUGH 4, FOR EACH INSIGNIFICANT EMISSION UNIT** [NAC 445B.295.1(a)].

Section 1. List all insignificant activities that are exempt pursuant to NAC 445B.288.3(a) through (l), and list the appropriate section that provides for the exemption. Provide information sufficient to show that the exemption applies (a copy of NAC 445B.288.3 is provided in Attachment 1).

Instructions (continued)

- Section 2. List all insignificant activities that are exempted because they are on the list approved and maintained by the Director pursuant to NAC 445B.288.3(m). Provide information sufficient to show that the exemption applies.
- Section 3. List all proposed insignificant activities which are not already contained in the list in Attachment 1. Provide sufficient description of activities, and all emission calculations and references. The list of proposed insignificant activities must also be submitted, under separate cover, to the Director for his review and approval.
- Section 4. Calculate the maximum uncontrolled emissions for insignificant activities listed under Section 1 through 3 (see Section 4 of Appendix 2 to determine if these calculations are required). Emissions calculations must be based on the maximum design throughput, maximum design production rate, maximum design heat input rate value, no controls, and 8760 hours per year of operation, unless otherwise indicated in NAC 445B.288.3 or on the list of approved insignificant activities provided in Attachment 1.
4. **Facility-wide potential to emit forms:**
Provide the stationary source's total emissions by completing Table 1 and Table 2 of Appendix 3. *(Note: Table 1 must include the insignificant activity emissions identified in Table 2 if applicable.)*
5. **Detailed emissions calculations:**
- Provide all emissions of regulated air pollutants (in pounds per hour and tons per year) from each emission unit. Attach all emissions and the supporting calculations in Appendix 4 [NAC 445B.295.1(h)].
(Note: A listing of default emission control efficiency values are contained in Attachment 4).
 - If required, provide all emissions of regulated air pollutants (in pounds per hour and tons per year) from each insignificant activity (see Section 4 of Appendix 2 to determine if these calculations are required). Attach all emissions and the supporting calculations in Appendix 4 [NAC 445B.295.1(h)]. List of emission units which perform insignificant activities is contained in Attachment 1 for reference.
6. **Emissions Cap:**
Federally enforceable emissions cap Please attach the information required in a. through c. below for each federally enforceable emission cap in Appendix 5. The request for a federally enforceable emissions cap must, at a minimum:
- State each applicable requirement which the applicant seeks to avoid [NAC 445B.296.2(a)];
 - Demonstrate that any applicable requirements not avoided by the cap will be met [NAC 445B.296.2(b)];
 - Contain proposed conditions, including monitoring and recordkeeping conditions for each proposed federally enforceable emissions cap, of the operating permit which will ensure compliance with any applicable requirement [NAC 445B.296.2(c)].
(Note: A common example of an emissions cap is a combined limitation on the yearly (annual) amount of fuel which may be combusted between two boilers.)
7. **Process flow diagram, plot plan, map, dust control plan:**
- Include in Appendix 6, a detailed process flow diagram of all processes indicating emissions control application points, throughput rate/design heat input rate value, and emission unit identification numbers [NAC 445B.295.3(a)(2)].
 - Include in Appendix 6, a plot plan of the entire source, drawn to scale (include scale) [NAC 445B.295.3(a)(2)]. The plot plan should include the location of all emission units, emission release points (stack and/or emission point locations), the fence line, and the property boundary.
 - Include in Appendix 6, a USGS 7½' or 15' map or other topographic map (with topographic lines clearly visible) indicating the following [NAC 445B.295.3(a)(2)]:
 - Exact location of entire source (also indicate all areas of surface disturbance).
 - Property boundary.
 - Location of fence or other physical barrier around source.
 - Scale of map.
 - UTM's, if other than a USGS 7½' or 15½' map is submitted.
 - Elevation contours and contour intervals, and contour values, clearly visible and in sufficient detail to determine elevations.

Instructions (continued)

8. **Dispersion Modelling Files:**

Environmental Evaluation - Dispersion Modelling

An applicant for an operating permit or a revision to an operating permit must submit, in Appendix 7, an environmental evaluation for:

- a. A new stationary source which emits, or has the potential to emit, greater than 25 tons of a regulated air pollutant per year;
- b. A modification to an existing stationary source that meets the following criteria:
 - i. The existing stationary source has the potential to emit greater than 25 tons of a regulated air pollutant per year; and
 - ii. The proposed modification has the potential to emit greater than 10 tons of a regulated air pollutant per year [NAC 445B.310].
- c. Applications for renewal must comply with all requirements for the issuance of an initial operating permit (see 10.a above) [NAC 445B.323.3].
- d. The environmental evaluation consists of dispersion models used to determine the location and estimated value of the highest concentration of regulated air pollutants [NAC 445B.311.4].

9. Modelling Analyses [NAC 445B.311.1.f.]

The modelling analyses must utilize the latest USEPA approved or equivalent air dispersion models. The analyses must clearly identify the following information at a minimum.

- a. Model -Name and type used.
 -Default options used.
- b. Emissions Data -Source parameters (stack/source height, location, dimensions)
 -Building dimensions
 -Background pollutant concentrations
- c. Meteorological Data -Location of data set utilized
 -Year of data record utilized
 -Quality of data utilized
 -Method for treating missing data
- d. Receptors -Grid spacing
 -Excluded receptors from within fenceline/property boundary
 -Identify simple or complex terrain

The modelling analyses must be provided in digital format and must consist of both the input and output data files. One hard copy of the input and output files must be provided. All meteorological data utilized which has not been provided by the Bureau of Air Quality must also be submitted in digital format. Please attach all modelling files in Appendix 7.

10. **Application Certification:**

Please complete the certification checklist for all forms and information provided in your application submittal. The responsible official must sign and date the application certification found in Appendix 8.

11. **Application Submittal:**

Please remove pages 1 through 6 (cover page, Table of Contents, General Information, and Instructions) and all Attachments of the application packet. Submit the remainder of the application packet as your formal application. This should consist, at a minimum, of the Class II Application cover page, the general Company Information, and Appendices 1 through 8.

Class II Air Quality Operating Permit Application

GENERAL COMPANY INFORMATION

1. **COMPANY NAME AND ADDRESS THAT ARE TO APPEAR ON THE OPERATING PERMIT** [NAC 445B.295.1(a)]:

(Name)

(Address)

(City)

(State)

(Zip Code)

2. **Owner's Name and Address** [NAC 445B.295.1(a)]:

(Name)

(Address)

(City)

(State)

(Zip Code)

3. **Source Name and Mailing Address, if different than #1** [NAC 445B.295.1(a)]:

(Name)

(Address)

(City)

(State)

(Zip Code)

4. **Physical Location of Stationary Source** [NAC 445B.295.1(h)]: (if no physical address, describe location, e.g., 4 miles south of I-80 at xx Interchange)

Township(s) _____ Range(s) _____ Section(s) _____

5. **Plant Manager or Other Appropriate Contact** [NAC 445B.295.1(a)]:

(Name)

(Title)

(Address)

(City)

(State)

(Zip Code)

(Telephone #)

(FAX #)

GENERAL COMPANY INFORMATION (CONTINUED)

6. Responsible Official Name, Title and Address [NAC 445B.295.1(h)]:

<hr/>		
(Name)	(Title)	
<hr/>		
(Address)		
<hr/>		
(City)	(State)	(Zip Code)
<hr/>		
(Telephone #)	(FAX #)	

7. If records required under the operating permit will be kept at a location other than the source, specify that location [NAC 445B.295.1(g)].

<hr/>		
(Name)		
<hr/>		
(Address)		
<hr/>		
(City)	(State)	(Zip Code)

8. This application is being submitted for the following (please check appropriate box below):

- ☐ A new Class II Operating Permit
- ☐ Renewal of a Class II Operating Permit
- ☐ Revision of a Class II Operating Permit

Appendix 1

EMISSION UNITS APPLICATION FORMS

**(Industrial Process/Combustion Equipment/Storage Silo/
Liquid Storage Tank/Surface Area Disturbance)**

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS II**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment _____
- b. Standard Industrial Classification (SIC) Code _____
- c. Manufacturer of equipment _____
- d. Model number _____ Serial number _____ *Equip. number _____
- e. Date equipment manufactured: _____
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☐ Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: ☐ Primary ($\geq 4"$)
☐ Secondary ($< 4"$ but $\geq 1"$)
☐ Tertiary ($< 1"$)
- h. Please check if portable: ☐ Portable (transportable or movable within the confines of the stationary source)
- i. UTM Coordinates _____ meters N; _____ meters E; Zone 11
- j. Basic equipment dimensions (feet): L _____ W _____ H _____

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) _____
- b. Requested operating rate (tons per hour)* _____
- c. Requested operating time: (time of day)* _____ to _____
Hours per day _____ Days per year _____
- d. Maximum operating rate (tons per year) _____
- e. Requested operating rate (tons per year)* _____
- f. Type of material processed _____
- g. Minimum moisture content _____

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

INDUSTRIAL PROCESS APPLICATION FORM CONTINUED

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion unit are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btu's)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Coal	tons				
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other _____					

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

INDUSTRIAL PROCESS APPLICATION FORM CONTINUED

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, low NOx burner, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
Stack height (feet from ground level)		
Stack inside diameter (feet)		
Temperature (°F) at design capacity		
Stack exit velocity (feet per second)		
Gas volume flow rate in cubic feet/minute (actual flow rate)		

Note 1: Manufacturers guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Quality's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

-Complete for Emissions **not** Exhausting Through a Stack: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control ("Uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 16 of the General Information section of the application form.		

Note 1: Manufacturers guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Quality's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

INDUSTRIAL PROCESS APPLICATION FORM CONTINUED

Section 5 - Requested Permit Emissions Limitations

Pollutant	Potential to Emit (pounds/hour)	Potential to Emit (tons/year)
Total Particulate Matter (PM)		
Particulates as PM ₁₀		
Sulfur Dioxide		
Carbon Monoxide		
Oxides of Nitrogen		
Volatile Organic Compounds		
Lead		
Hydrogen Sulfide		
Hazardous Air Pollutants (Specify Each Pollutant)		
Other Regulated Pollutants (Specify)		

*Note: Alternative emissions limitations (LB/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CLASS II**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment _____
- b. Standard Industrial Classification (SIC) Code _____
- c. Manufacturer of combustion unit _____
- d. Model number _____ Serial number _____ *Equip. number _____
- e. Date combustion unit manufactured _____
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☐ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable within the stationary source)
- h. UTM Coordinates _____ meters N; _____ meters E; Zone 11
- i. Basic equipment dimensions (feet): L _____ W _____ H _____

* The equipment number is the facilities own numbering convention for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. **Maximum** design horsepower (horsepower per hour) _____
(Please provide for internal combustion engines only)
- b. **Maximum** design heat **INPUT** (million Btu per hour) _____
(Please provide for all combustion units except for internal combustion engines)
- c. *Requested operating time: time of day _____ to _____
Hours per day _____ Days per year _____

*Note: Please complete if other than the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

COMBUSTION EQUIPMENT APPLICATION FORM CONTINUED

Section 3 - Fuel Usage

Type of Fuel	Amount Used Per Hour	Heat Content (Specify in Btu's)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Coal	tons				
Oil, type _____	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
Waste Oil*	gallons				
Other					
-					

If more than one type of fuel is combusted, under this operating scenario, please specify primary fuel and percentage on a maximum hourly and annual basis. If fuel blending is the primary fuel, identify percentages of each fuel blended. Attach additional information to this form if necessary.

*Firing of waste oil will require multi-metals test to ensure fuel is non-hazardous.

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters. This section must be completed.

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, low NOx burner, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
Stack height (feet from ground level)		
Stack inside diameter (feet)		
Temperature (°F) at design capacity		
Stack exit velocity (feet per second)		
Gas volume flow rate in cubic feet/minute (actual flow rate)		

Note 1: Manufacturers guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Quality's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**COMBUSTION EQUIPMENT
APPLICATION FORM
CONTINUED**

Section 5 - Requested Permit Emissions Limitations

Pollutant	Potential to Emit (pounds/hour)	Potential to Emit (tons/year)
Total Particulate Matter (PM)		
Particulates as PM ₁₀		
Sulfur Dioxide		
Carbon Monoxide		
Oxides of Nitrogen		
Volatile Organic Compounds		
Lead		
Hydrogen Sulfide		
Hazardous Air Pollutants (Specify Each Pollutant)		
Other Regulated Pollutants (Specify)		

*Note: Alternative emissions limitations (LB/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

**STORAGE SILO
APPLICATION FORM
CLASS II**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment _____
- b. Standard Industrial Classification (SIC) Code _____
- c. Manufacturer of equipment _____
- d. Model number _____ Serial number _____ *Equip. number _____
- e. Date equipment: manufactured _____
- f. Please check one: ☐ Temporary (At the same location for less than 12 months)
☐ Stationary (At the same location for more than 12 months)
- g. Please check if portable: ☐ Portable (transportable within the stationary source)
- h. UTM Coordinates _____ meters N; _____ meters E; Zone 11
- i. Basic equipment dimensions (feet): L _____ W _____ H _____

* The equipment number is the facilities own numbering convention for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design storage capacity (tons) _____
- b. Maximum loading rate (tons per hour) _____ Loading time (hours to fill) _____
- c. Maximum unloading rate (tons per hour) _____
- d. Method of unloading (screw auger, etc.) _____
- e. Continuous or batch discharge _____
- f. *Requested unloading rate (tons per hour) _____
*Requested unloading rate (tons per year) _____
- g. *Requested operating time: Hours per day _____ Time of day _____ to _____
- h. Material type processed (lime, cement, flyash, etc.) _____

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Section 3 -Reserved

STORAGE SILO APPLICATION FORM CONTINUED

Section 4 - Pollution Control Equipment (this section must be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled " if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
Stack height (feet from ground level)		
Stack inside diameter (feet)		
Temperaure (°F) at design capacity		
Stack exit velocity (feet per second)		
Gas volume flow rate in cubic feet/minute (actual flow rate)		

Note 1: Manufacturers guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Quality's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled " if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
Stack height (feet from ground level)		
Stack inside diameter (feet)		
Temperaure (°F) at design capacity		
Stack exit velocity (feet per second)		
Gas volume flow rate in cubic feet/minute (actual flow rate)		

Note 1: Manufacturers guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Quality's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Pollutant(s) discharge point above ground level (feet)		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 16 of the General Information section of the application form.		

Note 1: Manufacturers guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Quality's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 - Requested Permit Emissions Limitations - Silo Loading

Pollutant	Potential to Emit (pounds/hour)	Potential to Emit (tons/year)
Total Particulate Matter (PM)		
Particulates as PM ₁₀		
Sulfur Dioxide		
Carbon Monoxide		
Oxides of Nitrogen		
Volatile Organic Compounds		
Lead		
Hydrogen Sulfide		
Hazardous Air Pollutants (Specify Each Pollutant)		
Other Regulated Pollutants (Specify)		

*Note: Alternative emissions limitations (LB/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 (Continued) - Requested Permit Emissions Limitations - Silo Unloading

Pollutant	Potential to Emit (pounds/hour)	Potential to Emit (tons/year)
Total Particulate Matter (PM)		
Particulate as PM ₁₀		
Sulfur Dioxide		
Carbon Monoxide		
Oxides of Nitrogen		
Volatile Organic Compounds		
Lead		
Hydrogen Sulfide		
Hazardous Air Pollutants (Specify Each Pollutant)		
Other Regulated Pollutants (Specify)		

*Note: Alternative emissions limitations (LB/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

**LIQUID STORAGE TANK
APPLICATION FORM
CLASS II**

☐ Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Manufacturer of tank _____
- b. SIC Code _____ c. Liquid Stored _____
- d. Date of installation _____
- e. Tank Dimensions:
Shell height (feet) _____ Shell diameter (feet) _____
Liquid height (feet) _____ Average liquid height (feet) _____
Volume (gallons) _____
- f. Paint characteristics:
Shell color/shade (please check one) ☐ White/white ☐ Aluminum/specular
☐ Aluminum/diffuse ☐ Gray/light
☐ Gray/medium ☐ Red/primer
Shell condition _____
- g. Roof color/shade (please check one) ☐ White/white ☐ Aluminum/specular
☐ Aluminum/diffuse ☐ Gray/light
☐ Gray/medium ☐ Red/primer
Roof condition _____
- h. Roof characteristics:
Type (please check one):
☐ Cone ☐ Dome ☐ External floating roof ☐ Internal floating roof
For cone or dome roof, specify height (feet) _____
For cone roof, specify slope (ft/ft) _____
For dome roof, specify radius (feet) _____
- i. For external floating roof, please complete the following:
Tank construction: ☐ welded ☐ riveted
Primary rim seal: ☐ vapor-mounted ☐ liquid-mounted ☐ mechanical shoe
Secondary seal: ☐ weather shield ☐ rim-mounted ☐ none
Roof type: ☐ pontoon ☐ double deck
Roof fittings: ☐ access hatch ☐ gauge-float well ☐ gauge-hatch/sample well
☐ rim vent ☐ roof drains ☐ roof leg ☐ unslotted guide pole wells
☐ slotted guidepole/sample wells ☐ vacuum breaker
- j. For internal floating roof, please complete the following:
Primary seal: ☐ resilient foam-filled ☐ wiper seals other (please specify) _____
Secondary seal: ☐ resilient foam-filled ☐ wiper seals other (please specify) _____
Roof fittings: ☐ access hatch ☐ gauge-float well ☐ gauge-hatch/sample well
☐ rim vent ☐ roof drains ☐ roof leg
☐ unslotted guide pole wells ☐ slotted guidepole/sample wells
☐ vacuum breaker ☐ column wells ☐ (# of columns _____)
☐ Ladder wells ☐ stub drains
- k. True vapor pressure of liquid (psia) _____
- l. Reid vapor pressure of liquid (psi) _____

LIQUID STORAGE TANK APPLICATION FORM CONTINUED

Section 2 - Operating Parameters

- | | |
|----|---|
| a. | Maximum throughput (gallons per year) _____ |
| b. | Method of filling (submerged fill) _____ |

Section 3 - Reserved

Section 4 - Pollution Control Equipment (this section must be completed)

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, internal floating roof, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
Stack height (feet from ground level)		
Stack inside diameter (feet)		
Temperature (°F) at design capacity		
Stack exit velocity (feet per second)		
Gas volume flow rate in cubic feet/minute (actual flow rate)		

Note 1: Manufacturers guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Quality's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

LIQUID STORAGE TANK APPLICATION FORM CONTINUED

Section 5 - Requested Permit Emissions Limitations

Pollutant	Potential to Emit (pounds/hour)	Potential to Emit (tons/year)
Total Particulate Matter (PM)		
Particulates as PM ₁₀		
Sulfur Dioxide		
Carbon Monoxide		
Oxides of Nitrogen		
Volatile Organic Compounds		
Lead		
Hydrogen Sulfide		
Hazardous Air Pollutants (Specify Each Pollutant)		
Other Regulated Pollutants (Specify)		

*Note: Alternative emissions limitations (LB/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

**SURFACE AREA DISTURBANCE
APPLICATION FORM
CLASS II**

1. Project Name _____
2. Surface Area Disturbance Location:
Overall disturbance location description:
Township _____; Range _____; Section _____;
Township _____; Range _____; Section _____;
Township _____; Range _____; Section _____;
Township _____; Range _____; Section _____;
Township _____; Range _____; Section _____;
Township _____; Range _____; Section _____;
Township _____; Range _____; Section _____;
Township _____; Range _____; Section _____;
3. Indicate the total number of acres to be disturbed for the project _____
4. Nevada Administrative Code 445B.365 requires fugitive dust to be controlled (regardless of the size or amount of acreage disturbed), and requires an ongoing program, using best practical methods, to prevent particulate matter from becoming airborne. All activities which have the potential to adversely affect the local air quality must implement all appropriate measures to limit controllable emissions. Appropriate measures for dust control may consist of a phased approach to acreage disturbance rather than disturbing the entire area all at once; using wet suppression through such application methods as water trucks or water sprays systems to control wind blown dust; the application of soil binding agents or chemical surfactant to roadways and areas of disturbed soil; as well as the use of wind-break or wind-limiting fencing designed to limit wind erosion of soils.
5. Please include a dust control plan in Appendix 6 if the total number of acres to be disturbed in number 3 above equals or exceeds 20 acres. The dust control measures discussed above should be considered in the preparation of the required dust control plan. The acceptance of the dust control plan by the Bureau of Air Quality does not limit the permit holder's need to control fugitive dust from the disturbance and its related activities, nor from putting into effect an ongoing program for using the best practical methods of dust control.

Appendix 2

INSIGNIFICANT EMISSION UNIT INFORMATION FORM

Section 1 - List of Insignificant Activities/Emission Units Exempted Pursuant to NAC 445B.288.3(a) through (l) (see Attachment 1 for regulation)

Emission Unit	Exemption Regulation (Example - NAC 445B.288.3(b))	Reason Exemption Applies

Section 2 - List of Insignificant Activities/Emission Units Exempted Pursuant to List Approved by the Director (see Attachment 1 for list)

Emission Unit	Reason Exemption Applies

Section 3 - List of Insignificant Activities/Emission Units Which Are Not Contained In Section 1 or Section 2 Above (Note: Proposed insignificant activities from this Section must be submitted, under separate cover, to the Director for his approval)

Emission Unit

Section 4 -Emissions Calculations - Insignificant Emission Units/Activities

Emissions calculations for each insignificant activity must be provided if the potential to emit for all other emitting activities associated with the stationary source exceeds 60 tons per year for any individual regulated air pollutant. If the potential to emit is below the 60 ton per year threshold, only sections 1 through 3 of this form must be completed (please attach additional sheets as necessary). If the potential to emit exceeds the 60 ton per year threshold, emissions calculations to determine maximum uncontrolled emissions for each insignificant activity must be provided and included in Appendix 4. Please provide emissions calculations for each of the insignificant activities/emission units identified in Sections 1 through 3 above. Emissions calculations must be based on the maximum design throughput, maximum design production rate or maximum design heat input rate value of the emission unit or activity. No consideration for emissions reduction from pollution controls or limits on the hours of operation or other operational constraints may be allowed unless otherwise approved by the Director or as indicated in NAC 445B.288.3 or on the list provided in Attachment 1.

Appendix 3

FACILITY-WIDE POTENTIAL TO EMIT TABLES

TABLE 1
FACILITY-WIDE (STATIONARY SOURCE)
POTENTIAL TO EMIT
POUNDS/HOUR AND TONS/YEAR

Pollutant	Potential to Emit (pounds/hour)	Potential to Emit (tons/year)
Total Particulate Matter (PM)		
Particulates as PM₁₀		
Sulfur Dioxide		
Carbon Monoxide		
Oxides of Nitrogen		
Volatile Organic Compounds		
Lead		
Hazardous Air Pollutants (Specify Each Pollutant)		
Other Regulated Pollutants (Specify)		

TABLE 2

**INSIGNIFICANT ACTIVITIES
POTENTIAL TO EMIT
POUNDS/HOUR AND TONS/YEAR**

[illegible]

Appendix 4

DETAILED EMISSIONS CALCULATIONS

Please Attach Emission Calculations

Appendix 5

EMISSIONS CAP

Please Attach Emission Cap Information

☐ **Please Check if not applicable**

Appendix 6

PROCESS FLOW DIAGRAM

-

PLOT PLAN

-

MAP

-

DUST CONTROL PLAN

Please Attach Process Flow Diagram - Plot Plan - Map - Dust Control Plan

Appendix 7

DISPERSION MODELLING FILES

Please Attach Modelling Files and Supporting Information

Appendix 8

APPLICATION CERTIFICATION

APPLICATION CERTIFICATION

Certification of application content consisting of the following:
(Please check each of the appropriate boxes to indicate the information provided in your application submittal)

General Company Information

☐ General Company Information Form

Emission Unit Application Forms (Appendix 1)

- ☐ Industrial Process Application Form(s)
- ☐ Combustion Equipment Application Form(s)
- ☐ Storage Silos Application Form(s)
- ☐ Liquid Storage Tank Application Form(s)
- ☐ Surface Area Disturbance Form(s)

Insignificant Emissions Unit Information (Appendix 2)

☐ Insignificant Emissions Unit Information Form(s)

Facility-Wide Potential To Emit Tables (Appendix 3)

- ☐ Table 1 - Facility-Wide Potential To Emit
- ☐ Table 2 - Insignificant Activities Potential To Emit

Detailed Emissions Calculations (Appendix 4)

☐ Detailed Emissions Calculations Provided

Emissions Cap Information (Appendix 5)

☐ Emissions Cap Information Provided

Process Flow Diagram, Plot Plan, Map, Dust Control Plan (Appendix 6)

- ☐ Flow Diagram Provided
- ☐ Plot Plan Provided
- ☐ Map Provided
- ☐ Dust Control Plan Provided

Dispersion Modelling Files (Appendix 7)

☐ Dispersion Modelling Provided

Records Location, Application Certification (Appendix 8)

☐ Records Location Information and Application Certification

Additional Information Requested by the Director

☐ Any Additional Information Required by the Director

PLEASE NOTE THE FOLLOWING REQUIREMENTS WHICH APPLY TO PERMIT APPLICANTS DURING THE APPLICATION PROCESS:

- A. A permit applicant must submit supplementary facts or corrected information upon discovery [NAC 445B.297.1(b)].
- B. A permit applicant is required to provide any additional information which the Director requests in writing within the time specified in the Director's request [NAC 445B.297.1(c)].
- C. Submission of fraudulent data or other information may result in prosecution for an alleged criminal offense (NRS 445B.470).

CERTIFICATION: I certify that, based on information and belief formed after reasonable inquiry, the statements contained in this application are true, accurate and complete.

Signature of Responsible Official

Print or Type Name and Title

Date

ATTACHMENT 1

**LIST OF APPROVED
INSIGNIFICANT
ACTIVITIES**

-

NAC 445B.288.3

Approved Insignificant Activities

The following insignificant activities have been approved by the director in accordance with NAC 445B.288.3(m):

- ◆ Crematory Incinerators processing <175 tons per year (1/24/96)
- ◆ Autoclave re-bricking (3/1/96)
- ◆ Prill silos <100,000 tons/year (3/1/96)
- ◆ Parts cleaners - cold cleaning only (3/1/96)
- ◆ Storage tanks, as follows: (3/1/96)

<u>Emission Unit</u>	<u>Tank size (gallons)</u>	and	<u>Vapor Pressure (PSIA)</u>
non-HAP VIL*	<40,000		<0.60
non HAP VIL	<200,000		<0.13
HAP VIL	<40,000		<0.15
HAP VIL	<200,000		<0.03
Liquid NaCN	any size		N/A
*VIL - volatile inorganic liquid			

- ◆ Portable screening plant, processing \leq 100,000 tons of metallic mineral, in less than 6 months, with \geq 4% moisture content (3/5/96)
- ◆ Carbon strip/electrowinning circuit, with a total liquid surface area of less than 610 square feet and a solution flow rate less than 400 gallons per minute (6/12/96)
- ◆ Mine analytical laboratory fume hoods (6/12/96)
- ◆ Mine metallurgical laboratory fume hoods (6/12/96)
- ◆ Landfarming of not more than 270,000 tons per year of diesel-based hydrocarbon contaminated soil, with a concentration of less than 50,000 ppm Total Petroleum Hydrocarbons (6/12/96)
- ◆ Landfarming of not more than 338 tons per year of gasoline-based hydrocarbon contaminated soil, with a concentration of less than 50,000 ppm Total Petroleum Hydrocarbons (6/12/96)
- ◆ Sand washing operations, consisting of material unloading by continuous drop feed on a feed conveyor, double deck screen/wash with two feed conveyors to the materials stockpile, processing the following: (1) less than 765,000 tons per year at the following moisture contents: material unloading and conveyor belt at least 1.5% moisture, screen and tow conveyor belts at least 7.0% moisture; (2) less than 805,000 tons per year at the following moisture contents: material unloading and conveyor belt at least 1.5% moisture, screen and tow conveyor belts at least 7.5% moisture; (3) less than 844,000 tons per year at the following moisture contents: material unloading and conveyor belt at least 1.5% moisture, screen and two conveyor belts at least 8.5% moisture (6/12/96)
- ◆ Draining of 155mm M687 Projectile OPA (Isopropyl Alcohol/Isopropylamine) canisters, containing 71.7 weight percent isopropyl alcohol and 28.3 weight percent isopropylamine, not to exceed 2,400 canisters per week (7/2/97)
- ◆ Lime silo, located at Newmont Gold Company's Rain Project, 127 ton storage capacity, equipped with silo discharge auger which is physically limited to 1.50 tons per hour of discharge of lime (13,140 tons per year) (7/13/98)
- ◆ Chemistry laboratory at the HWAD Main Base (8/24/98)

- ◆ Transloading facility for lime, consisting of railcar transfer to screw conveyor, screw conveyor to belt conveyor, belt conveyor to truck, transferring 80 tons per hour, for Continental Lime Inc.'s Dunphy Transloading facility (1/13/99)
- ◆ Shotcrete plant located at Newmont Gold Company's Rain Project underground facility, described as follows: two (2) cement silo augers, cement metering bin, mix box containing washed pea gravel and sand, and auger to shotcrete transport truck. Shotcrete plant throughput is physically limited by shotcrete discharge auger, at 25.6 tons per hour (19.84 tons per hour gravel/sand and 5.76 tons per hour cement) (4/27/99)
- ◆ SmartAsh 100 disposal unit, specified as follows: 55 gallon steel open head drum, stainless steel lid, plated tubular steel frame, 2 blowers, for burning absorbent materials, paper waste, wood by-products, rags, used filters, waste oil, and other **non-hazardous** waste at a rate of 50 pounds per hour (5/7/99)
- ◆ One evaporator/Condenser located at Quebecor Printing Nevada's Fernley facility with a maximum design capacity of 2000 gallons per day. (11/30/99)
- ◆ Transloading facility for flyash, consisting of railcar transfer to screw conveyor, screw conveyor to belt conveyor, belt conveyor to truck, transferring 80 tons per hour, for Continental Lime Inc.'s Dunphy Transloading facility (12/1/99)

NAC 445B.288.3 Insignificant Activities.

Except as otherwise provided in this subsection, the following existing and new emission units perform insignificant activities and are not required to obtain operating permits:

- (a) Air-conditioning equipment or fuel-burning equipment, except internal combustion engines, that individually have a rating:
 - (1) Less than 4,000,000 Btu's per hour; or
 - (2) Equal to or greater than 4,000,000 Btu's per hour, but operating less than 100 hours per calendar year.
- (b) Motor vehicles and special mobile equipment. As used in this paragraph, "special mobile equipment" has the meaning ascribed to it in NAC 445B.450.
- (c) Residential and commercial housekeeping vacuum systems.
- (d) Incinerators with less than 25 lb per hour rated burning capacity.
- (e) Agricultural land use.
- (f) Storage containers for petroleum liquid or storage facilities for volatile organic liquid having a capacity of less than 40,000 gallons which are not subject to 40 C.F.R. Part 60, Subparts K, Ka or Kb.
- (g) Equipment or contrivances used exclusively for the processing of food for human consumption.
- (h) Disturbing topsoil of less than 5 acres.
- (i) Maximum allowable throughput of less than 50 lb per hour, unless the emission unit directly emits or has the potential to emit a hazardous air pollutant.
- (j) Portable internal combustion engines that, individually, have a rating:
 - (1) Less than 500 horsepower output; or
 - (2) Equal to or greater than 500 horsepower output, but operating less than 100 hours per calendar year.
- (k) Stationary internal combustion engines that, individually, have a rating:
 - (1) Less than 250 horsepower output; or
 - (2) Equal to or greater than 250 horsepower output, but operating less than 100 hours per calendar year.
- (l) Emergency generators.
- (m) Other emission units exempted by the director from the requirement of obtaining an operating permit. The director may:
 - (1) Exempt emission units from the requirement of obtaining an operating permit only if he determines that:
 - (I) The operation of the emission unit will not result in emissions of hazardous air pollutants that exceed 1 pound per hour or 1,000 pounds per year;
 - (II) The operation of the emission unit will not result in emissions of regulated air pollutants that exceed 4,000 pounds per year;
 - (III) The operation of the emission unit will not result in emissions of regulated air pollutants that exceed any other emissions limitation pursuant to an applicable requirement; and
 - (IV) The operation of the emission unit will not result in emissions of regulated air pollutants that adversely impact public health or safety.
 - (2) Consider the impacts of the combined emissions of multiple emission units to determine whether to exempt a specific emission unit. The potential emissions from the emission units listed in this subsection must be included in the determination of whether a stationary source is a major source, except for the potential emissions from motor vehicles and special mobile equipment, residential and commercial housekeeping vacuum systems, agricultural land use and disturbing top soil of less than 5 acres.

4. As used in this section:

- (a) "Emergency generator" means an internal combustion engine that is used to generate electrical power to maintain essential operations during unplanned electrical power outages.
- (b) "Internal combustion engine" means any fuel burning, heat generating engine, except engines in the motor vehicles or the special mobile equipment described in NRS 445B.740, 445B.745 and 445B.750 and NAC 445B.450.

[Environmental Comm'n, Air Quality Reg. § 3.1.8, eff. 11-7-75]—(NAC A 10-22-87; 12-8-89; 9-19-90; 11-23-92; 12-13-93, eff. 11-15-94; 3-29-94, eff. 11-15-94; 10-30-95)—(Substituted in revision for NAC 445B.293)

ATTACHMENT 2

LIST OF TRIVIAL ACTIVITIES

LIST OF TRIVIAL ACTIVITIES

The following types of activities and emission units may be presumptively omitted from a Class I or Class II application. Certain of these listed activities include qualifying statements intended to exclude many similar activities. Trivial activities are emission units without specific applicable requirements under Title V of the Clean Air Act Amendments of 1990 and with extremely small emissions. There are also no applicable State Implementation Plan requirements for these activities. As of June 12, 1998, cooling towers have been removed from this list and must be treated as a permitted item or insignificant activity.

- Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources
- Air-conditioning units used for human comfort that do not have applicable requirements under Title VI of the CAA
- Ventilating units used for human comfort that do not exhaust air pollutants into the ambient air from any manufacturing/industrial or commercial process
- Non-commercial food preparation
- Consumer use of office equipment and products, not including printers or businesses primarily involved in photographic reproduction
- Janitorial services and consumer use of janitorial products
- Internal combustion engines used for landscaping purposes
- Laundry activities, except for dry-cleaning and steam boilers
- Bathroom/toilet vent emissions
- Emergency (backup) electrical generators at residential locations
- Tobacco smoking rooms and areas
- Blacksmith forges
- Facility maintenance and upkeep activities (e.g., groundskeeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification¹
- Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or degreasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification
- Portable electrical generators that can be moved by hand from one location to another. (NOTE: "Moved by hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device)
- Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic
- Brazing, soldering and welding equipment, and cutting torches related to manufacturing and construction activities that do not result in emission of HAP metals²
- Air compressors and pneumatically operated equipment, including hand tools
- Batteries and battery charging stations, except at battery manufacturing plants
- Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized
- Equipment used to mix and package, soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt

²Brazing, soldering and welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals are more appropriate for treatment as insignificant activities based on size or production level thresholds.

solutions, provided appropriate lids and covers are utilized

- Drop hammers or hydraulic presses for forging or metalworking
- Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment
- Vents from continuous emissions monitors and other analyzers
- Natural gas pressure regulator vents, excluding venting at oil and gas production facilities
- Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation
- Equipment used for surface coating, painting, dipping or spraying operations, except those that will emit VOC or HAP
- CO₂ lasers, used only on metals and other materials which do not emit HAP in the process
- Consumer use of paper trimmers/binders
- Drying ovens and autoclaves, electric or steam heated, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam
- Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants
- Laser trimmers using dust collection to prevent fugitive emissions
- Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents³
- Routine calibration and maintenance of laboratory equipment or other analytical instruments
- Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis
- Hydraulic and hydrostatic testing equipment
- Environmental chambers not using hazardous air pollutant (HAP) gases
- Shock chambers
- Humidity chambers
- Solar simulators
- Fugitive emissions related to movement of passenger vehicles, provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted
- Process water filtration systems and demineralizers
- Demineralized water tanks and demineralizer vents
- Boiler water treatment operations, not including cooling towers
- Oxygen scavenging (de-aeration) of water
- Ozone generators
- Fire suppression systems
- Emergency road flares
- Steam vents and safety relief valves
- Steam leaks

³Many lab fume hoods or vents might qualify for treatment as insignificant or be grouped together for purposes of description.

- Steam cleaning operations
- Steam sterilizers
- Oxygen plant, not including fuel burning equipment
- Lime slakers
- Ro-taps (bench scale)
- Rifles
- Ventilated benches (sample preparation area)
- Underground mining activities (including ventilation shafts)
- Aspirating devices for, and venting of, aerosol cans, butane or natural gas cylinders, propane gas cylinders and ether cylinders with a capacity of less than 1 gallon
- Vacuum truck related activities
- Non-commercial experimental and analytical laboratory equipment which are bench scale in nature
- Use of pesticides, fumigants and herbicides
- Equipment using water, soap, detergents, or a suspension of abrasives in water for purposes of cleaning or finishing
- Pump or motor oil reservoirs
- Electric motors
- Soil gas sampling
- Continuous emissions monitoring system calibration gases
- Water treatment or storage or cooling systems for process water (specify any water additives), not including cooling towers
- Chemical storage associated with water and wastewater treatment
- Aerosol can usage
- Plastic pipe and liner welding
- Acetylene, butane and propane torches
- Equipment used exclusively for portable steam cleaning
- Caulking operations which are not part of a production process
- High voltage induced corona
- Production of hot/chilled water for on-site use not related to an industrial process
- Filter draining
- General vehicle maintenance and servicing activities at the source
- Station transformers
- Circuit breakers (non-PCB oil filled)
- Storage cabinets for flammable products
- Fugitive emissions from landfill operations (provided the landfill is not subject to any federal applicable requirement)
- Automotive repair shop activities

- Stormwater ponds
- Blast cleaning equipment using a suspension of abrasive in water and any exhaust system or collector serving them exclusively
- Motor vehicle wash areas, etc.
- Open burning (provided all reporting and permitting requirements which apply are followed)
 1. Fire fighting activities and training conducted at the source in preparation for fighting fires
 2. Open burning activities in accordance with the NAC
 3. Flares used to indicate danger
- Pressure relief valves
- Natural gas pressure regulator vents, excluding venting at oil and gas production facilities

ATTACHMENT 3

LIST OF HAZARDOUS AIR POLLUTANTS

The original list of hazardous air pollutants as follows:

CAS Number	Chemical Name
75070	Acetaldehyde
60355	Acetamide
75058	Acetonitrile
98862	Acetophenone
53963	2-Acetylaminofluorene
107028	Acrolein
79061	Acrylamide
79107	Acrylic acid
107131	Acrylonitrile
107051	Allyl chloride
92671	4-Aminobiphenyl
62533	Aniline
90040	o-Anisidine
1332214	Asbestos
71432	Benzene (including benzene from gasoline)
92875	Benzidine
98077	Benzotrichloride
100447	Benzyl chloride
92524	Biphenyl
117817	Bis(2-ethylhexyl)phthalate (DEHP)
542881	Bis(chloromethyl)ether
75252	Bromoform
106990	1,3-Butadiene
156627	Calcium cyanamide
105602	Caprolactam(See Modification)
133062	Captan
63252	Carbaryl
75150	Carbon disulfide
56235	Carbon tetrachloride
463581	Carbonyl sulfide
120809	Catechol
133904	Chloramben
57749	Chlordane
7782505	Chlorine
79118	Chloroacetic acid
532274	2-Chloroacetophenone
108907	Chlorobenzene
510156	Chlorobenzilate
67663	Chloroform
107302	Chloromethyl methyl ether
126998	Chloroprene
1319773	Cresols/Cresylic acid (isomers and mixture)
95487	o-Cresol
108394	m-Cresol

CAS Number	Chemical Name
106445	p-Cresol
98828	Cumene
94757	2,4-D, salts and esters
3547044	DDE(See technical note)
334883	Diazomethane
132649	Dibenzofurans(See technical note)
96128	1,2-Dibromo-3-chloropropane
84742	Dibutylphthalate
106467	1,4-Dichlorobenzene(p)
91941	3,3-Dichlorobenzidene(See technical note)
111444	Dichloroethyl ether (Bis(2-chloroethyl)ether)
542756	1,3-Dichloropropene
62737	Dichlorvos
111422	Diethanolamine
121697	N,N-Diethyl aniline (N,N-Dimethylaniline)(See technical note)
64675	Diethyl sulfate
119904	3,3-Dimethoxybenzidine(See technical note)
60117	Dimethyl aminoazobenzene
119937	3,3'-Dimethyl benzidine(See technical note)
79447	Dimethyl carbamoyl chloride(See technical note)
68122	Dimethyl formamide
57147	1,1-Dimethyl hydrazine(See technical note)
131113	Dimethyl phthalate
77781	Dimethyl sulfate
534521	4,6-Dinitro-o-cresol, and salts
51285	2,4-Dinitrophenol
121142	2,4-Dinitrotoluene
123911	1,4-Dioxane (1,4-Diethyleneoxide)
122667	1,2-Diphenylhydrazine
106898	Epichlorohydrin (1-Chloro-2,3-epoxypropane)
106887	1,2-Epoxybutane
140885	Ethyl acrylate
100414	Ethyl benzene(See technical note)
51796	Ethyl carbamate (Urethane)
75003	Ethyl chloride (Chloroethane)
106934	Ethylene dibromide (Dibromoethane)
107062	Ethylene dichloride (1,2-Dichloroethane)
107211	Ethylene glycol
151564	Ethylene imine (Aziridine)
75218	Ethylene oxide
96457	Ethylene thiourea
75343	Ethylidene dichloride (1,1-Dichloroethane)
50000	Formaldehyde
76448	Heptachlor
118741	Hexachlorobenzene
87683	Hexachlorobutadiene

CAS Number	Chemical Name
77474	Hexachlorocyclopentadiene
67721	Hexachloroethane
822060	Hexamethylene-1,6-diisocyanate
680319	Hexamethylphosphoramide
110543	Hexane
302012	Hydrazine
7647010	Hydrochloric acid(See technical note)
7664393	Hydrogen fluoride (Hydrofluoric acid)
7783064	Hydrogen sulfide(See Modification)
123319	Hydroquinone
78591	Isophorone
58899	Lindane (all isomers)
108316	Maleic anhydride
67561	Methanol
72435	Methoxychlor
74839	Methyl bromide (Bromomethane)
74873	Methyl chloride (Chloromethane)
71556	Methyl chloroform (1,1,1-Trichloroethane)
78933	Methyl ethyl ketone (2-Butanone)
60344	Methyl hydrazine
74884	Methyl iodide (Iodomethane)
108101	Methyl isobutyl ketone (Hexone)
624839	Methyl isocyanate
80626	Methyl methacrylate
1634044	Methyl tert butyl ether(See technical note)
101144	4,4-Methylene bis(2-chloroaniline)(See technical note)
75092	Methylene chloride (Dichloromethane)
101688	Methylene diphenyl diisocyanate (MDI)
101779	4,4'-Methylenedianiline
91203	Naphthalene
98953	Nitrobenzene
92933	4-Nitrobiphenyl
100027	4-Nitrophenol
79469	2-Nitropropane
684935	N-Nitroso-N-methylurea
62759	N-Nitrosodimethylamine
59892	N-Nitrosomorpholine
56382	Parathion
82688	Pentachloronitrobenzene (Quintobenzene)
87865	Pentachlorophenol
108952	Phenol
106503	p-Phenylenediamine
75445	Phosgene
7803512	Phosphine
7723140	Phosphorus(See technical note)
85449	Phthalic anhydride

CAS Number	Chemical Name
1336363	Polychlorinated biphenyls (Aroclors)
1120714	1,3-Propane sultone
57578	beta-Propiolactone
123386	Propionaldehyde
114261	Propoxur (Baygon)
78875	Propylene dichloride (1,2-Dichloropropane)
75569	Propylene oxide
75558	1,2-Propylenimine (2-Methyl aziridine)
91225	Quinoline
106514	Quinone
100425	Styrene
96093	Styrene oxide
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin
79345	1,1,2,2-Tetrachloroethane
127184	Tetrachloroethylene (Perchloroethylene)
7550450	Titanium tetrachloride
108883	Toluene
95807	2,4-Toluene diamine
584849	2,4-Toluene diisocyanate
95534	o-Toluidine
8001352	Toxaphene (chlorinated camphene)
120821	1,2,4-Trichlorobenzene
79005	1,1,2-Trichloroethane
79016	Trichloroethylene
95954	2,4,5-Trichlorophenol
88062	2,4,6-Trichlorophenol
121448	Triethylamine
1582098	Trifluralin
540841	2,2,4-Trimethylpentane
108054	Vinyl acetate
593602	Vinyl bromide
75014	Vinyl chloride
75354	Vinylidene chloride (1,1-Dichloroethylene)
1330207	Xylenes (isomers and mixture)
95476	o-Xylenes(See technical note)
108383	m-Xylenes(See technical note)
10642	p-Xylenes(See technical note)

Antimony Compounds

Arsenic Compounds (inorganic including arsine)

Beryllium Compounds

Cadmium Compounds

Chromium Compounds

Cobalt Compounds

Coke Oven Emissions

Cyanide Compounds¹

CAS Number**Chemical Name**Glycol ethers ²

Lead Compounds

Manganese Compounds

Mercury Compounds

Fine mineral fibers ³ [\(See technical note\)](#)

Nickel Compounds

Polycyclic Organic Matter ⁴ [\(See technical note\)](#)Radionuclides (including radon) ⁵

Selenium Compounds

NOTE: For all listings above which contain the word "compounds" and for glycol ethers, the following applies: Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic, etc.) as part of that chemical's infrastructure.

¹ X'CN where X = H' or any other group where a formal dissociation may occur. For example KCN or Ca(CN)₂

² Includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH₂CH₂)_n-OR' where n = 1, 2, or 3

R = alkyl or aryl groups

R' = R, H, or groups which, when removed, yield glycol ethers with the structure: R-(OCH₂CH₂)_n-OH. Polymers are excluded from the glycol category. [\(See Modification\)](#)

³ Includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.

⁴ Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100 ½ C.

⁵ A type of atom which spontaneously undergoes radioactive decay.

Modifications To The 112(b)1 Hazardous Air Pollutants

Authority for modifications:

Section 112 of the Act contains a mandate for U.S. EPA to evaluate and control emissions of hazardous air pollutants. Section 112(b)(1) includes an initial list of hazardous air pollutants that is composed of specific chemical compounds and compound classes to be used to identify source categories for which the U.S. EPA will promulgate emissions standards. The listed categories are subject to emission standards subsequently developed under Section 112. The U.S. EPA must periodically review the list of hazardous air pollutants and, where appropriate, revise this list by rule. In addition, any person may petition U.S. EPA under Section 112(b)(3) to modify the list by adding or deleting one or more substances. A petitioner seeking to delete a substance must demonstrate that there are adequate data on the health and environmental effects of the substance to determine that emissions, ambient concentrations, bioaccumulation, or deposition of the substance may not reasonably be anticipated to cause any adverse effects to human health or the environment. To demonstrate the burden of proof, a petitioner must provide a detailed evaluation of the available data concerning the substance's potential adverse health and environmental effects, and estimate the potential exposures through inhalation or other routes resulting from emissions of the substance.

Modifications

Glycol Ethers - Proposed

On January 12, 1999 (FR64:1780), U.S. EPA proposed to modify the definition of glycol ethers to exclude surfactant alcohol ethoxylates and their derivatives (SAED). This proposal was based on U.S. EPA's finding that emissions, ambient concentrations, bioaccumulation, or deposition of SAED may not reasonably be anticipated to cause adverse human health or environmental effects. U.S. EPA also proposed to make conforming changes in the definition of glycol ethers with respect to the designation of hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The proposal reads as follows:

"The definition of the glycol ethers category of hazardous air pollutants, as established by 42 U.S.C. 7412(b)(1) includes mono- and di-ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH₂CH₂)_n-OR' Where: n= 1, 2, or 3 R= alkyl C7 or less, or phenyl or alkyl substituted phenyl R'= H, or alkyl C7 or less, or carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate."

Notices of Review

Date	Citation	Description
06/23/99	64 FR 33453	Notice:Hazardous Air Pollutant list-Methyl Ethyl Ketone(MEK); receipt of a complete petition to delist

Caprolactam

On July 19, 1993, U.S. EPA received a petition from AlliedSignal, Inc., BASF Corporation, and DSM Chemicals North America, Inc. to delete caprolactam (CAS No. 105-60-2) from the hazardous air pollutant list in Section 112(b)(1), 42 U.S.C., Section 7412(b)(1). A Notice of Receipt was published (58FR45081, August 26, 1993) noting that the data filed were adequate to support decision making. After a comprehensive review of the data submitted, the EPA published a proposal to delist caprolactam (60FR48081, September 18, 1995). In order to help address public concern, on March 13, 1995, U.S. EPA executed two detailed agreements with AlliedSignal concerning the Irmo, South Carolina manufacturing facility and another facility located in Chesterfield, Virginia, copies of which are included in the public docket for this rulemaking. AlliedSignal agreed that, if caprolactam was delisted pursuant to the proposal, AlliedSignal would install emissions controls which EPA believed would be equivalent to the controls which would have been required had EPA issued a standard to control these sources under Section 112. The agreed emissions controls are incorporated in federally enforceable operating permits for the affected facilities, and will be in place years earlier than controls would have otherwise been required. In addition, AlliedSignal has agreed to establish a citizen advisory panel concerning the Irmo facility in order to improve communications with the community and to assure that citizens have an ongoing role in implementation of the agreed emission reductions. The public requesting a public hearing. On November 28, 1995, the EPA published a notice of public hearing and an extension of the comment period (60FR58589). After considering all public comments, the EPA published a final rule delisting caprolactam (61FR30816, June 18, 1996).

All information associated with this rule making is located in Docket Number A-94-33 at the Central Docket Section (A-130), Environmental Protection Agency, 401 M St. SW., Washington, D.C. 20460. phone 202-260-7548, fax 202-260-4400, email a-and-r-docket@epamail.epa.gov. The docket includes complete index to all papers filed in this docket, a copy of the original petition, comments submitted, and additional materials supporting the rule. A reasonable fee may be charged for copying. The docket may be inspected in person between 8:00 a.m. and 4:30 p.m. on weekdays at EPA's Central Docket Section, West Tower Lobby, Gallery 1, Waterside Mall, 401 M St., SW, Washington, D.C. 20460.

Hydrogen Sulfide

A clerical error led to the inadvertent addition of hydrogen sulfide to the Section 112(b) list of Hazardous Air Pollutants. However, a Joint Resolution to remove hydrogen sulfide from the Section 112(b)(1) list was passed by the Senate on August 1, 1991 (Congressional Record page S11799), and the House of Representatives on November 25, 1991 (Congressional Record pages H11217-H11219). The Joint Resolution was approved by the President on December 4, 1991. Hydrogen Sulfide is included in Section 112(r) and is subject to the accidental release provisions. A study (see below) was required under Section 112(n)(5).

Hydrogen Sulfide Air Emissions Associated with the Extraction of Oil and Natural Gas,
EPA-453/R-93-045,
NTIS (publication # is PB94-131224, \$36.50 hard copy, \$17.50 microfiche).

National Technical Information Services (NTIS)
5285 Port Royal Road
Springfield, VA 22161
703-487-4650 800-426-4791
703-487-4807 8:30-5:30 EST M-F

ATTACHMENT 4

LIST OF DEFAULT CONTROL EFFICIENCY RATINGS

Nevada Bureau of Air Quality

Emission Control Technology - Control Efficiency Ratings

Emission Control Technology	Control Efficiency Rating
Water Sprays	75%
Fogging Water Sprays	85%
Fogging Water Sprays with Surfactant	90%
Pneumatic Fogging Water Sprays	95%
Cyclones	*80%
High-Efficiency Cyclones	*96%
Multi Clones	*95%
Wet Scrubber	*85%
Venturi Scrubber	*95%
High-Efficiency Wet Scrubber	*98%
Electrostatic Precipitator	*Manufacturers Guarantee
Enclosure	50%
Filter Vent (cartridge or filter sock)	*90%
Baghouse/Dust Collector	*Manufacturers Guarantee/0.02 grains/dscf

Note: - The guaranteed emissions outlet (outlet grain loading) information from the pollution control device manufacturer should be utilized to derive appropriate emissions limitations rather than the percent reduction ratings provided above. The percent reduction rating provided by the pollution control device manufacturer is based on the difference between the amount of pollutant entering the control versus the amount of pollutant exiting the control. If the percent reduction rating provided above is applied to emission factors (such as those provided in AP-42) that are different from those used by the pollution control device manufacturer in the design of the control, excessively low, and in many cases un-achievable emissions levels may be calculated.